

WHAT IS CLAIMED IS:

*Sub A 7*

1. A computer system comprising:  
 a display;  
 a cursor for pointing to a position within said display;  
 a bar rendered on said display and having a plurality of tiles associated therewith; and  
 a processor for varying a size of at least one of said plurality of tiles on said display when said cursor is proximate said bar on said display.

*Sub A 10*

2. The computer system of claim 1, wherein each of said plurality of tiles represents an object with which a user of said computer system can interact.

3. The computer system of claim 2, wherein said objects include at least one of: applications, documents, windows and uniform resource locators.

*Sub A 20*

4. The computer system of claim 1, wherein said at least one of a plurality of tiles includes a tile to which said cursor is closest and a plurality of tiles to either side of said tile.

5. The computer system of claim 1, wherein said processor also varies a position of at least another of said plurality of tiles in accordance with a predefined relationship between an effect width  $W$ , a default height  $h$  of said at least one of said plurality of tiles and a selected maximum height  $H$  of said at least one of said plurality of tiles.

*Sub A 30*

6. The computer system of claim 5, wherein said predefined relationship includes a function  $S$  defined as:

$$S = ((H - h) \div 2) \div \sin(\pi \times (h \div 2) \div (W \times 2))$$

*Sub A<sub>3</sub>*

7. The computer system of claim 6, wherein said at least another of said plurality of tiles has a left edge and a right edge and wherein said at least one of said plurality of tiles is moved to a position such that said left edge has a distance  $d_1'$  from said cursor and said right edge has a distance  $d_2'$  from said cursor wherein:

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$$d_1' = S \times \sin(\pi / 2 \times d_1 / W)$$

$$d_2' = S \times \sin(\pi / 2 \times d_2 / W)$$

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8. The computer system of claim 7, wherein said at least one of said plurality of tiles is scaled by a factor of:

$$1 + (d_2' - d_1') / (d_2 - d_1)$$

wherein  $d_1$  and  $d_2$  are distances from said cursor to said left edge and right edge, respectively, of said at least one of said plurality of tiles prior to being moved to said position.

9. The computer system of claim 1, wherein said size of said at least one of said plurality of tiles is varied based on a sine function.

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10. The computer system of claim 1, wherein said bar is rendered at a bottom of said display.

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11. The computer system of claim 10, wherein there is a gap between said bar and said bottom of said display.

12. The computer system of claim 1 further comprising:  
a user selection function for permitting a user to select a value of at least one characteristic of said bar.

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13. The computer system of claim 12, wherein a maximum size to which said at least one of said plurality of tiles can be enlarged is said at least one characteristic.

5 14. The computer system of claim 12, wherein a default size for said plurality of tiles is said at least one characteristic.

10 15. The computer system of claim 12, wherein an effect width within which said at least one of said plurality of tiles have varied size is said at least one characteristic.

16. The computer system of claim 1, wherein said processor removes said bar from said display when said cursor moves away from said bar.

15 17. The computer system of claim 16, wherein said processor removes said bar by invoking an animation routine which makes said bar appear to slide into an edge of said display.

20 18. The computer system of claim 1, wherein said processor removes said bar by invoking an animation routine which makes said bar appear to slide into an edge of said display in response to at least one keystroke.

25 19. The computer system of claim 12, wherein a setting for an autohide capability for said bar is said at least one characteristic.

20. The computer system of claim 1, wherein said plurality of tiles occupy a single row on said display.

30 21. The computer system of claim 1, wherein said plurality of tiles occupy multiple rows on said display.

*Sub A*

22. The computer system of claim 1, wherein at least two of said plurality of tiles are permanent residents of said bar.

5 23. The computer system of claim 22, wherein said at least two of said plurality of tiles establish a left and right end for said bar.

10 24. The computer system of claim 12, wherein a status of objects as permanent or nonpermanent on said bar is said at least one characteristic.

25. The computer system of claim 1, wherein said cursor is proximate said bar when said cursor is positioned on or within a border of one of said plurality of tiles.

15 26. The computer system of claim 1, wherein said cursor is proximate said bar when said cursor is within a predetermined distance of one of said plurality of tiles.

27. The computer system of claim 1, wherein said processor displays a label associated with said at least one of said plurality of tiles.

20 28. The computer system of claim 27, wherein said processor displays said label with a first predetermined fade-in rate when said cursor moves proximate said at least one of said plurality of tiles from another of said plurality of tiles.

25 29. The computer system of claim 28, wherein said processor displays said label with a second predetermined fade-in rate when said cursor moves proximate said at least one of said plurality of tiles from outside a region associated with said bar.

30. The computer system of claim 29, wherein said first and second fade-in rates are different.

31. The computer system of claim 27, wherein said processor fades out said label when said cursor moves away from said at least one of said plurality of tiles.

32. The computer system of claim 31, wherein said processor uses a first fade out rate when said cursor moves into another of said at least one of said plurality of tiles.

33. The computer system of claim 32, wherein said processor uses a second fade out rate when said cursor moves out of a region associated with said bar.

10 34. The computer system of claim 33, wherein said first and second rates are different.

15 35. A computer system comprising:  
a display;  
a cursor means for pointing to a position within said display;  
a userbar rendered on said display and having a plurality of tiles associated therewith; and  
a processor means for varying a position of at least one of said plurality of tiles on said display when said cursor is proximate said bar on said display.

20 36. The computer system of claim 35, wherein each of said plurality of tiles represents an object with which a user of said computer system can interact.

25 37. The computer system of claim 36, wherein said objects include at least one of: applications, documents, windows and uniform resource locators.

38. The computer system of claim 35, wherein said processor varies said position in accordance with a predefined relationship between an effect width W, a

~~default height  $h$  of said at least one of said plurality of tiles and a selected maximum height  $H$  of said at least one of said plurality of tiles.~~

39. The computer system of claim 38, wherein said predefined relationship  
5 includes a function S defined as:

$$S = ((H - h) \div 2) \div \sin(\pi \times (h \div 2) \div (W \times 2))$$

40. The computer system of claim 39, wherein said at least one of said plurality of tiles has a left edge and a right edge and wherein said at least one of said plurality of tiles is moved to a position such that said left edge has a distance  $d_1'$  from said cursor and said right edge has a distance  $d_2'$  from said cursor wherein:

$$d_1' = S \times \sin(\pi / 2 \times d_1 / W)$$

$$d_2' = S \times \sin(\pi / 2 \times d_2 / W)$$

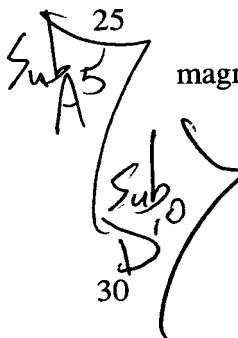
41. The computer system of claim 7, wherein said at least one of said plurality of tiles is scaled by a factor of:

$$1 + (d_2' - d_1') \div (d_2 - d_1)$$

20 wherein  $d_1$  and  $d_2$  are distances from said cursor to said left edge and right edge,  
respectively, of said at least one of said plurality of tiles prior to being moved to said  
position.

42. The computer system of claim 35, wherein said processor also varies a magnification of said at another of said plurality of tiles.

43. The computer system of claim 42 further comprising:  
means for permitting a user to select a magnitude of said magnification.



44. The computer system of claim 35, wherein said plurality of tiles have a default size which can be set by said user.

45. The computer system of claim 43, wherein said magnification of said at least another of said plurality of tiles is varied based on a sine function.

46. The computer system of claim 35, wherein said userbar is rendered at an edge of said display.

47. The computer system of claim 46, wherein there is a gap between said userbar and said edge of said display.

48. The computer system of claim 35 further comprising:  
a user selection means for permitting a user to select a value of at least  
one characteristic of said userbar.

49. The computer system of claim 48, wherein a maximum size to which at least another of said plurality of tiles can be enlarged is said at least one characteristic.

50. The computer system of claim 48, wherein a default size for said plurality of tiles is said at least one characteristic.

51. The computer system of claim 48, wherein an effect width within which at least another of said plurality of tiles have varied size is said at least one characteristic.

52. The computer system of claim 35, wherein said processor means removes said userbar from said display when said cursor moves away from said userbar.

53. The computer system of claim 52, wherein said processor means removes said userbar by invoking an animation routine which makes said userbar appear to slide into an edge of said display.

5 54. The computer system of claim 35, wherein said processor means removes said userbar by invoking an animation routine which makes said userbar appear to slide into an edge of said display in response to at least one keystroke.

10 55. The computer system of claim 48, wherein a setting for an autohide capability for said userbar is said at least one characteristic.

56. The computer system of claim 35, wherein said plurality of tiles occupy a single row on said display.

15 57. The computer system of claim 35, wherein said plurality of tiles occupy multiple rows on said display.

20 58. The computer system of claim 35, wherein at least two of said plurality of tiles are permanent residents of said userbar.

59. The computer system of claim 58, wherein said at least two of said plurality of tiles establish a left and right end for said userbar.

25 60. The computer system of claim 48, wherein a status of objects as permanent or nonpermanent on said userbar is said at least one characteristic.

61. The computer system of claim 35, wherein said cursor is proximate said userbar when said cursor is positioned on or within a border of one of said plurality of tiles.

62. The computer system of claim 35, wherein said cursor is proximate said userbar when said cursor is within a predetermined distance of one of said plurality of tiles.

5 63. The computer system of claim 35, wherein said processor means displays a label associated with said at least one of said plurality of tiles.

10 64. The computer system of claim 63, wherein said processor means displays said label with a first predetermined fade-in rate when said cursor moves proximate said at least one of said plurality of tiles from another of said plurality of tiles.

15 65. The computer system of claim 64, wherein said processor means displays said label with a second predetermined fade-in rate when said cursor moves proximate said at least one of said plurality of tiles from outside a region associated with said userbar.

20 66. The computer system of claim 65, wherein said first and second fade-in rates are different.

67. The computer system of claim 63, wherein said processor means fades out said label when said cursor moves away from said at least one of said plurality of tiles.

25 68. The computer system of claim 67, wherein said processor means uses a first fade out rate when said cursor moves into another of said at least one of said plurality of tiles.

30 69. The computer system of claim 68, wherein said processor means uses a second fade out rate when said cursor moves out of a region associated with said bar.

70. The computer system of claim 69, wherein said first and second rates are different.

*Sub A7 5*  
71. A method for displaying items in a graphical user interface comprising the steps of:

providing a plurality of said items in a region of said graphical user interface, each of said items having a default height associated therewith; moving a cursor along said region; and selectively magnifying at least one of said items based on a position of

10 said cursor within said region.

72. The method of claim 71, further comprising the steps of:  
displaying said plurality of items in said region at said default size unless said plurality of items exceeds a predetermined number; and  
15 scaling said plurality of items when said plurality of items exceeds said number.

73. The method of claim 71, wherein said step of selectively magnifying further comprises the step of:

20 magnifying said at least one of said items on which said cursor is positioned to a first level and magnifying items proximate said tile to other levels less than said first level.

*Sub A8 25*  
74. The method of claim 73, wherein said step of magnifying further comprises magnifying said at least one of said items in accordance with a scaling factor S, wherein S is a predefined relationship between an effect width W, said default height h and a selected maximum height H of said items.

*Sub 15*

75. The method of claim 74, wherein said predefined relationship is:  
 $S = ((H - h) \div 2) \div \sin(\pi \times (h \div 2) \div (W \times 2))$ .

*Sub A*

76. The method of claim 73, further comprising the step of:  
 setting, by a user, said first level of magnification.

77. The method of claim 75, wherein another of said plurality of items has a left edge and a right edge and wherein said another of said plurality of items is moved to a position such that said left edge has a distance  $d_1'$  from said cursor and said right edge has a distance  $d_2'$  from said cursor wherein:

$d_1' = S \times \sin(\pi \div 2 \times d_1 \div W)$

$d_2' = S \times \sin(\pi \div 2 \times d_2 \div W)$

15 78. The method of claim 77, wherein said at least one of said plurality of items is scaled by a factor of:  
 $1 + (d_2' - d_1') \div (d_2 - d_1)$

20 25 wherein  $d_1$  and  $d_2$  are distances from said cursor to said left edge and right edge, respectively, of said at least one of said plurality of items prior to being moved to said position.

79. The method of claim 71 further comprising the step of:  
 permitting a user to select a magnitude of said magnification.

80. The method of claim 71, wherein said plurality of items have a default size which can be set by a user.

CROSS-REFERENCE TO RELATED APPLICATIONS



81. The method of claim 71, wherein said magnification of said at least one of said plurality of items is varied based on a sine function.

82. The method of claim 71, wherein said region is proximate a bottom of  
5 said graphical user interface.

83. The method of claim 82, wherein there is a gap between said region and  
said bottom of said graphical user interface.

10 84. The method of claim 71 further comprising the step of:  
permitting a user to select a value of at least one characteristic of said  
region.

15 85. The method of claim 84, wherein a maximum size to which at least one of said plurality of items can be enlarged is said at least one characteristic.

86. The method of claim 84, wherein a default size for said plurality of items is said at least one characteristic.

20 87. The method of claim 84, wherein an effect width within which said at least one of said plurality of items have varied size is said at least one characteristic.

88. The method of claim 71, further comprising the step of:  
removing said plurality of items from said display when said cursor  
25 moves away from said region.

89. The method of claim 88, further comprising the step of:  
removing said plurality of items by invoking an animation routine which  
makes said plurality of items appear to slide into an edge of said graphical user  
30 interface.

90. The method of claim 71, further comprising the step of:  
removing said plurality of items by invoking an animation routine which  
makes said plurality of items appear to slide into an edge of said display in response to  
at least one keystroke.

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91. The method of claim 84, wherein a setting for an autohide capability for  
said plurality of items is said at least one characteristic.

92. The method of claim 71, wherein said plurality of items occupy a single  
10 row on said graphical user interface.

93. The method of claim 71, wherein said plurality of items occupy multiple  
rows on said graphical user interface.

15 94. The method of claim 71, wherein at least two of said plurality of items  
are permanent residents.

95. The method of claim 94, wherein said at least two of said plurality of  
tiles establish a left and right end for said plurality of items.

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96. The method of claim 84, wherein a status of objects as permanent or  
nonpermanent within said plurality of items is said at least one characteristic.

25 97. The method of claim 96, further comprising the step of:  
automatically rendering permanent items in said region at startup of said  
graphical user interface.

98. The method of claim 71, wherein said region extends beyond borders of  
said items.

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99. The method of claim 71, further comprising the step of:  
displaying a label associated with said at least one of said plurality of  
items.

5 100. The method of claim 99, wherein said step of displaying further  
comprises the step of:  
displaying said label with a first predetermined fade-in rate when said  
cursor moves proximate said at least one of said plurality of items from another of said  
plurality of items.

10 101. The method of claim 100, wherein said step of displaying further  
comprises the step of:  
displaying said label with a second predetermined fade-in rate when said  
cursor moves proximate said at least one of said plurality of items from outside said  
region.

15 102. The method of claim 101, wherein said first and second fade-in rates are  
different.

20 103. The method of claim 99, further comprising the step of:  
fading out said label when said cursor moves away from said at least one  
of said plurality of item.

25 104. The method of claim 103, further comprising the step of:  
using a first fade out rate when said cursor moves into another of said at  
least one of said plurality of items.

105. The method of claim 104, further comprising the step of:  
using a second fade out rate when said cursor moves out of said region.

106. The method of claim 105, wherein said first and second rates are different.

*Sub A<sup>10</sup>* 5  
107. A computer-readable medium usable for displaying items in a graphical user interface comprising:

means for providing a plurality of said items in a region of said graphical user interface, each of said items having a default height associated therewith; means for moving a cursor along said region; and means for selectively magnifying at least one of said items based on a position of said cursor within said region.

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